

What is claimed is:

1. An identification document comprising:

document layers, including two or more printed image layers;

the image layers having different ink properties that when illuminated in different
5 illumination bands become detectable in a detection band; the image layers being
arranged relative to each other to create a three dimensional effect when strobed with
illumination in the illumination bands corresponding to the image layers.

2. The document of claim 1 wherein at least one of the image layers is not human
visible when illuminated in a human visible band.

10 3. The document of claim 2 wherein the image layers are not human visible when
illuminated in the human visible band.

4. The document of claim 3 wherein the detection band is the human visible
band.

15 5. The document of claim 4 wherein the image layers emit light in the human
visible band when illuminated in different non-visible illumination bands.

6. The document of claim 5 wherein the image layers fluoresce in the human
visible band when illuminated in different non-visible illumination bands

7. The document of claim 1 wherein the detection band is a visible band.

20 8. The document of claim 1 wherein the image layers depict variable information
associated with a bearer of the identification document.

9. The document of claim 8 wherein the image layers depict a photo of the bearer
that appears three dimensional when strobed.

10. The document of claim 1 wherein the image layers depict an object from different perspectives and are interleaved over an area on the document such that when strobed, a viewer sees the different perspectives over the area and perceives a three dimensional effect of the object.

5 11. The document of claim 10 wherein the object is a head of a bearer of the identification document.

12. The document of claim 1 wherein the image layers include segments of a machine readable code such that when strobed, the machine readable code becomes detectable in a composite image formed from the image layers.

10 13. The document of claim 12 wherein the machine readable code comprises digital data in a digital watermark.

14. An identification document comprising:

document layers, including two or more printed image layers;

15 the image layers having different ink properties that when illuminated in different illumination bands become detectable in a detection band; the image layers being arranged relative to each other to create a moving image effect when strobed with illumination in the illumination bands corresponding to the image layers.

15. The document of claim 14 wherein at least one of the image layers is not human visible when illuminated in a human visible band.

20 16. The document of claim 15 wherein the image layers are not human visible when illuminated in the human visible band.

17. The document of claim 16 wherein the detection band is the human visible band.

18. The document of claim 17 wherein the image layers emit light in the human visible band when illuminated in different non-visible illumination bands.

19. The document of claim 18 wherein the image layers fluoresce in the human
5 visible band when illuminated in different non-visible illumination bands

20. The document of claim 14 wherein the detection band is a visible band.

21. The document of claim 14 wherein the image layers depict variable information associated with a bearer of the identification document.

22. The document of claim 21 wherein the image layers depict a photo of the
10 bearer that appears to move when strobed.

23. The document of claim 14 wherein the image layers depict an object in different positions that appears to move when strobed.

24. The document of claim 23 wherein the image layers are interleaved over an area on the document such that when strobed, a viewer sees the different positions of the
15 object and perceives a moving object effect in the area of document.

25. The document of claim 24 wherein the object is a head of a bearer of the identification document.

26. The document of claim 14 wherein the image layers include segments of a machine readable code such that when strobed, the machine readable code becomes
20 detectable in a composite image formed from the image layers.

27. The document of claim 26 wherein the machine readable code comprises digital data in a digital watermark.

28. A method of making an identification document comprising:

generating image layers depicting an object from different perspectives;

printing the image layers with inks having different properties such that when the inks are illuminated in different illumination bands, the ink layers printed with the inks become detectable in a detection band; the image layers being arranged relative to each other to create a three dimensional effect when strobed with illumination in the illumination bands corresponding to the image layers.

29. The method of claim 28 wherein one or more of the image layers are generated from a three dimensional model extracted from a single image of an object to be depicted in the three dimensional effect.

30. The method of claim 29 wherein the object is a head of a bearer of an identification document, and the single image comprises a photo of the bearer.

31. A method of making an identification document comprising:

generating image layers depicting an object from different perspectives;

printing the image layers with inks having different properties such that when the inks are illuminated in different illumination bands, the ink layers printed with the inks become detectable in a detection band; the image layers being arranged relative to each other to create a moving image effect when strobed with illumination in the illumination bands corresponding to the image layers.

32. The method of claim 31 wherein the image layers are printed in an interleaved arrangement in an area of the document, and the image layers depict an object in different positions such that when strobed, the object appears to move within the area on the document.

33. The method of claim 32 wherein the area is located in an area depicting a facial photo of the bearer of the identification document.

34. The method of claim 32 wherein the object comprises a head of the bearer of the identification document.

5 35. The method of claim 32 wherein the object comprises a graphical symbol.

36. The method of claim 35 wherein the graphical symbol appears to move over a facial photo on the document when strobed.

37. A method of verifying an identification document comprising:

10 strobing an area on the document with illumination in different illumination bands, the document including two or more image layers depicting an object in different positions or perspectives within the area, each of the layers being printed with inks in the area having different illumination bands that cause the object to be detectable in a detection band; and

15 detecting a moving image or three dimensional effect of the object in the detection band caused by the strobing.

38. The method of claim 37 including machine capturing images of the area at intervals during the strobing of illumination in the illumination bands that makes each image layer detectable in the detection band.

20 39. The method of claim 38 including extracting a machine readable code from a composite image formed from the captured images.

40. The method of claim 39 wherein the machine readable code comprises digital data in a digital watermark embedded in the image layers.